



Confirmation of Product Type Approval

Company Name: HY-LOK CORPORATION

Address: 97, NOKSANSANDAN 27-ROGANGSEO-GU BUSAN 46751 Korea, Republic of

Product: Penetration Device for Pipe Deck and Bulkhead Penetration Sealing

Model(s): BHD Union & Welding Adapter

Endorsements:

| Certificate Type | Certificate Number | Issue Date | Expiry Date |
|---------------------------------|--------------------|-------------|-------------|
| Product Design Assessment (PDA) | 23-2444768-PDA | 05-SEP-2023 | 04-SEP-2028 |
| Manufacturing Assessment (MA) | 19-BK3756133 | 07-NOV-2019 | 07-JAN-2025 |
| Product Quality Assurance (PQA) | NA | NA | NA |

Tier

3 - Type Approved, unit certification not required

Intended Service

For use on Ships and Offshore Installations. (Pipe Transit for A-0 Steel Bulkhead and Deck).

Description

1. The pipe penetration consists of a penetration piece and two bite connectors made of SUS316/SUS316L.

2. The size of penetration piece is as follow:

- ADBUW Type: L Series (6 mm ~ 35 mm) & S Series (6 mm ~ 38 mm),
- ACBUW Type: Fractional size (1/16" ~ 1-1/2") & Metric Size (2 mm ~ 38 mm).

Ratings

"A-0" Class Pipe Transit.

Service Restrictions

- Unit Certification is not required for this product.
- If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.
- All type should be installed in accordance with the manufacturer's instructions in accordance with ABS approved installation drawings.

- Watertight bulkheads or decks are to be tested as per ABS Marine Vessel Rules 3-7-1/Table 1.
- Not for use in tank boundaries.
- Bundling of pipes are not permitted in watertight bulkheads.
- When requested to be used in watertight bulkheads on passenger ships or special purpose ships, the penetration system has to comply with the requirements give in SOLAS Ch. 11-1 Reg. 13.2.3 (Consolidated Edition 2020), as amended.
- The bulkhead or deck in way of the penetration is to be properly insulated in accordance with SOLAS II-2 Pt. C/Reg.9.3 (Consolidated Edition 2020) and the rating of the transit is to be the same or better than the bulkhead or deck in which it is installed.
- The product or packing is to be marked with manufacturer name and type designation on a suitable position.
- Tested Pipe transit size: 6 mm dia., 15 mm dia. & 38 mm dia.

Comments

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- Our approval is based on that the above material has been tested and certified by Korea Marine Equipment Research Institute (KOMERI), Report Nos.: KOMERI-0402-17T2147 dated 14 March 2018 & KOMERI-0402-17T2148 dated 14 March 2018.
- Unless specially directed by Administration, this approval is not to be construed as a substitute for Flag Administration's approval for the purpose of SOLAS (Consolidated Edition 2014), as amended.
- This certificate may not be used for EU and US flagged vessels (MED and/or USCG have their own specific/requirements).
- The installation is to be in accordance with the manufacturer's instructions.

Notes, Drawings and Documentation

- Drawing No. 2018H10D03, Welding Bulkhead Union 38mmOD(ADBUW-38S), Revision: 0
- Drawing No. 2018H10D09, Welding Bulkhead Union 38mmOD(ACBUW-38M), Revision: 0
- Drawing No. 2018H10D11, Welding Bulkhead Union 6mmOD, L120(ADBUW-06LL120), Revision: 0
- Drawing No. 2018H10D12, Welding Bulkhead Union 15mmOD, L120(ADBUW-15LL120), Revision: 0
- Drawing No. 2018H10D05, Welding Bulkhead Union 6mmOD, L120(ACBUW-6ML120), Revision: 0
- Drawing No. 2018H10D07, Welding Bulkhead Union 15mmOD, L120(ACBUW-15ML120), Revision: 0
- Drawing No. 2017F25D01, Bulkhead Welding Union 38S for FTP Code A0, Revision: 0
- Drawing No. 2017F25D03, Bulkhead Welding Union 38mmOD for FTP Code A0, Revision: 0
- Drawing No. 2017F25D05, Bulkhead Welding Union 6L, 15L, 6mm, 15mmOD for FTP Code A0, Revision: 0
- Drawing No. DA0-18J26-S01, Catalog & Structural Steel Core, Revision: 0
- Drawing No. KOMERI-0402-17T2147 dated 14 March 2018, KOMERI Test Report, Revision: -
- Drawing No. KOMERI-0402-17T2148 dated 14 March 2018, KOMERI Test Report, Revision: -

Drawing No. BK3360411, ABS Surveyor Report, Revision: -

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 04/Sep/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2023 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4

2023 Mobile Offshore Unit Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3

International Standards

IMO Resolution MSC.307(88) adopted on 2010, IMO FTP Code 2010 (2012 Edition), Annex 1 Part 3, in conjunction with SOLAS (Consolidated Edition 2020), as amended.

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in black ink, appearing to read "J. J. W. H.", is positioned above the corporate information.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 26-Dec-2023 12:52

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and

Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.